



ST/CO USE ONLY DATE RECEIVED DATE WELL COMPLETED APPROVED BY PERMIT NO. FROM "PERMIT TO DRILL WELL"  
 12/20/2010 10/27/20 APPROVED 12/4/2010 22 360 25 40-20-0049

OWNER Woulfe, Emilie Cour WELL SITE ADDRESS 1371a Kennard Drive TOWN Glenelg  
 SUBDIVISION Crystal Clear SECTION \_\_\_\_\_ LOT 2

**WELL LOG**  
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Topsail	0	1	
Silt; Lt. Brn. mica. w/ fine sand	1	100	✓
Weath. Schist w/ fine sand and mica.	100	103	
Schist; Lt. green gray in color	103	360	✓

**GROUTING RECORD**  
 WELL HAS BEEN GROUTED (Circle Appropriate Box)  Y  N  
 TYPE OF GROUTING MATERIAL (Circle one) CEMENT  CM BENTONITE CLAY  BC  
 NO. OF BAGS 17 NO. OF POUNDS 850  
 GALLONS OF WATER 323  
 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 360 ft.  
 (enter 0 if from surface)

**CASING RECORD**  
 casing types insert appropriate code below  
 ST STEEL  CO CONCRETE  
 PL PLASTIC  OT OTHER  
 MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 100

**OTHER CASING (if used)**  
 diameter inch \_\_\_\_\_ depth (feet) from \_\_\_\_\_ to \_\_\_\_\_  
PVC casing removed upon grouting of gas loop installation

**SCREEN RECORD**  
 screen type or open hole (insert appropriate code below)  ST STEEL  BR BRASS BRONZE  HO OPEN HOLE  OT OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0  
 WELL HYDROFRACTURED  Y  N  
 CIRCLE APPROPRIATE LETTER  
 A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED  
 E ELECTRIC LOG OBTAINED  
 P TEST WELL CONVERTED TO PRODUCTION WELL

**DEPTH (nearest ft.)**

1	2	3	4	5	6	7	8	9	11	15	17	21
E	10	100	360									
A												
C												
H												
S												
R												
E												
N												

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 MWD 587  
Alfred DeGosh  
 DRILLER'S SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)  
 LIC. NO. 1 AW D083  
B. Zee  
 SITE SUPERVISOR (signature of driller or journeyman responsible for sitework if different from permittee)

**SCREEN RECORD**  
 DIAMETER OF SCREEN (NEAREST INCH) \_\_\_\_\_  
 from \_\_\_\_\_ to \_\_\_\_\_  
 GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 \_\_\_\_\_ 68  
**MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)**  
 T \_\_\_\_\_ (E.R.O.S.) W Q \_\_\_\_\_  
 70 \_\_\_\_\_ 72 \_\_\_\_\_ 74 75 76 \_\_\_\_\_  
 TELESCOPE CASING LOG INDICATOR OTHER DATA

**PUMPING TEST**  
 HOURS PUMPED (nearest hour) N/A  
 PUMPING RATE (gal. per min.) N/A  
 METHOD USED TO MEASURE PUMPING RATE \_\_\_\_\_  
 WATER LEVEL (distance from land surface)  
 BEFORE PUMPING N/A ft.  
 WHEN PUMPING N/A ft.  
 TYPE OF PUMP USED (for test)  
 A air  P piston  T turbine  
 C centrifugal  R rotary  O other (describe below)  
 J jet  S submersible

**PUMP INSTALLED**  
 DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) YES  NO   
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. N/A  
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. N/A  
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) N/A  
 PUMP HORSE POWER N/A  
 PUMP COLUMN LENGTH (nearest ft.) N/A  
 CASING HEIGHT (circle appropriate box and enter casing height) N/A  
 + above } LAND SURFACE  
 - below } -3 (nearest foot)

LATITUDE 39.269352  
 LONGITUDE 76.993431  
 (DEFAULT COORD. WGS 84)  
 Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or state law.



**B 1** SEQUENCE NO. (MDE USE ONLY) **68924** STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type STATE PERMIT NUMBER **Ho-20-0049**  
 70 fill in this form completely 79

**1 2 3 6** Date Received (APA)  
**8** MM DD YY 13 **OWNER INFORMATION**  
**Wouffe** **Emilie Connor**  
 15 Last Name Owner First Name 34  
**13810 Kennard Drive**  
 36 Street or RFD 55  
**Glenelg Md. 21737**  
 57 Town 70 State 72 Zip 76

**B 3** LOCATION OF WELL  
**Howard**  
 8 COUNTY 21  
**Lot 7.793A Crystal Clear**  
 23 SUBDIVISION 42  
 SECTION 44 46 LOT **2** 48 50  
**Glenelg**  
 52 NEAREST TOWN 71

**DRILLER INFORMATION**  
**Stephen DeLosh M WD 587**  
 Driller's Name 76 License No. 81  
**Connelly + Associates, Inc**  
 Firm Name  
**1513 Tilco Dr. Frederick MD 21704**  
 Address  
**Stephen DeLosh 9-8-2020**  
 Signature Date

**B 4** SOURCES OF DRILLING WATER  
 1. **private**  
 2. **10/21/2020**  
 3. **WYU-BEN WELL GROUT DF**  
**LOT H 09112012 15:37**

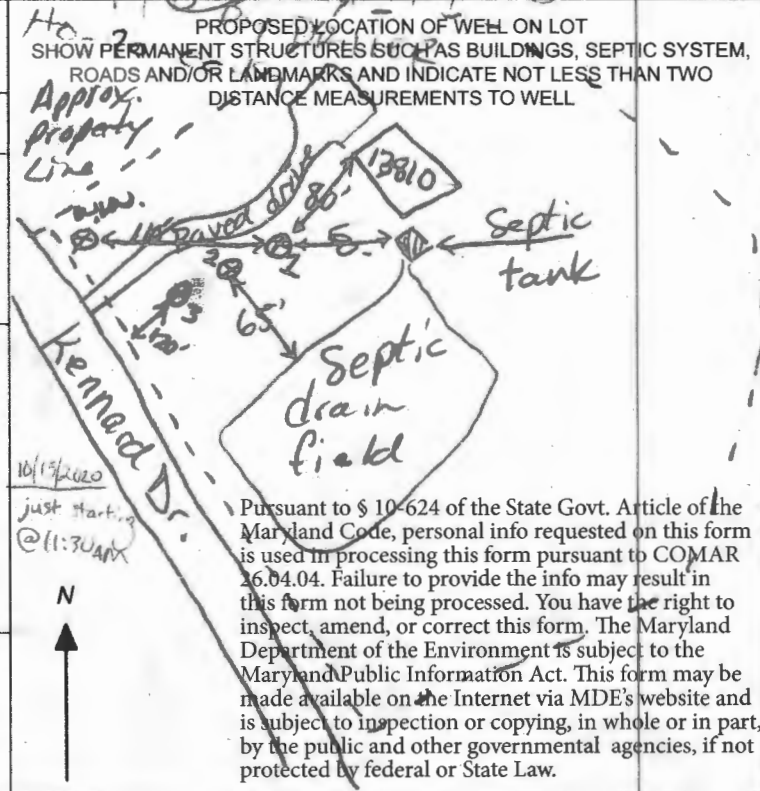
**13810 Kennard Drive**  
 11 STREET ADDRESS 30  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH  WEST  EAST  SOUTH   
 34 **130** 37 DISTANCE FROM ROAD FT  
 ENTER ET OR MI 38 39  
 TAX MAP **0022** BLK: \_\_\_\_\_ PARCEL **0533**

**B 2** WELL INFORMATION  
 APPROX. PUMPING RATE (GAL. PER MIN.) **N/A**  
 8 12  
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) **N/A**  
 14 20

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**  
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 INDUSTRIAL, COMMERCIAL, DEWATERING  
 PUBLIC WATER SUPPLY WELL  
 TEST, OBSERVATION, MONITORING  
 OPEN LOOP GEOTHERMAL  
 CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**  
**Howard**  
 COUNTY NAME  
 STATE SIGNATURE **[Signature]** INSERT S 41  
 DATE ISSUED **09/29/2020**  
 43 MM DD YY 48 EXP. DATE  
**Don't touch 10/16/2020 5:00 PM 7/12/2020 5:00 PM**

APPROXIMATE DEPTH OF WELL **360** FEET  
 24 28  
 APPROXIMATE DIAMETER OF WELL **6"** NEAREST INCH



**METHOD OF DRILLING (circle one)**  
 BORED (or Augered)  JETTED  Jetted & DRIVEN  
 30 AIR-ROTARY  AIR-PERCUSSION  ROTARY (Hydraulic Rotary)  
 37 CABLE  REVERSE-ROTARY  DRIVE-POINT  
 other \_\_\_\_\_

**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**  
 THIS WELL WILL NOT REPLACE AN EXISTING WELL  
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
 39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS  
 THIS WELL WILL DEEPEM AN EXISTING WELL  
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**  
 APPROP. PERMIT NUMBER \_\_\_\_\_ **G** \_\_\_\_\_  
 PERMIT No. **Ho-20-0049**  
 70 71 72 73 74 75 76 77 78 79

**SPECIAL CONDITIONS**  
 NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

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HOWARD COUNTY HEALTH DEPARTMENT

67978

DATE 9/15/20

005  
301 646-8820

Received From

Conjugal Care Associates

PHONE #

For

Well Permits - 4628 Rowland  
13810 Fairway  
etc

- CASH
- CHECK

NO.

100013

three hundred twenty Dollars

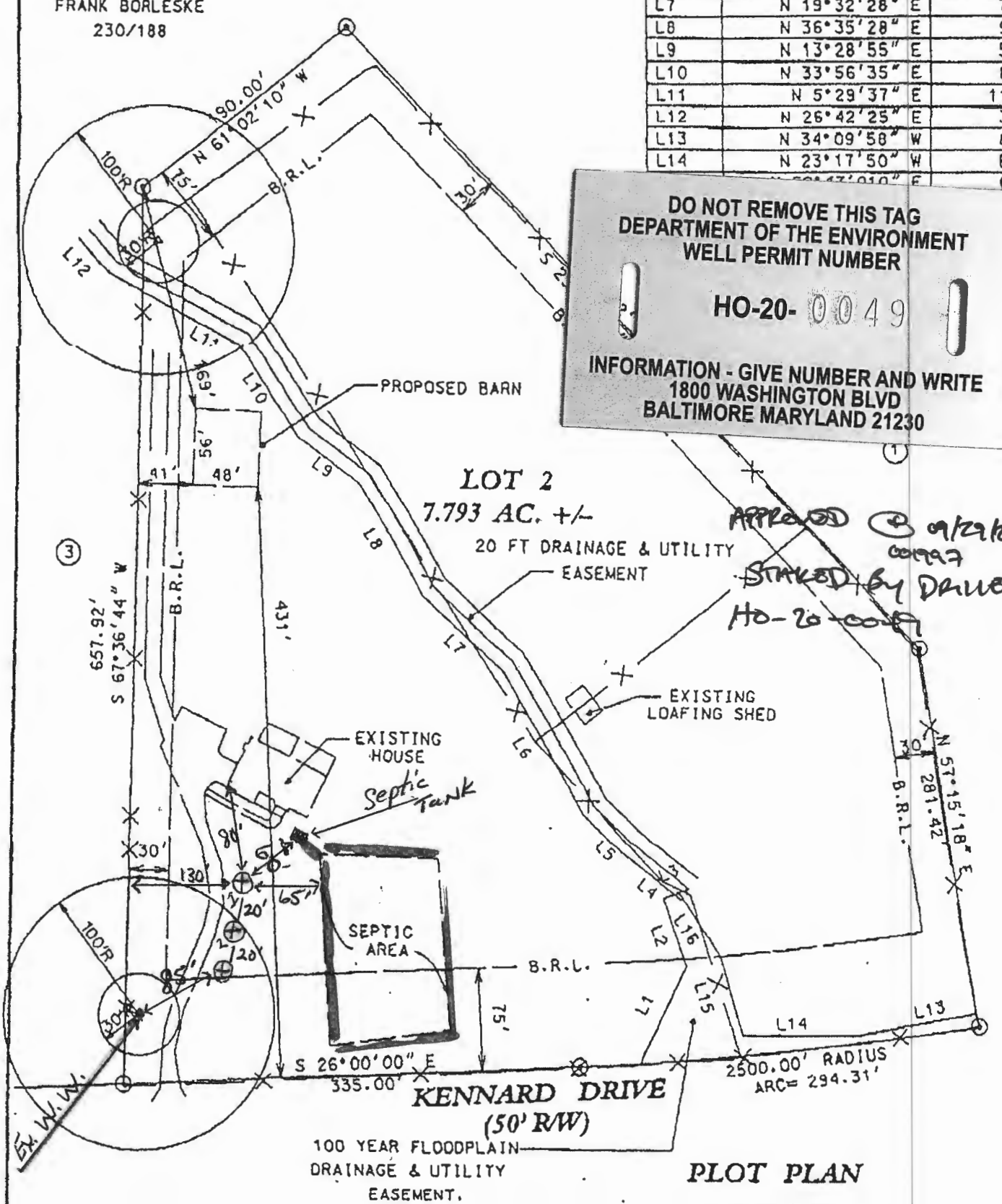
\$ 320.00

Received By

King

N/F  
FRANK BORLESKE  
230/188

Ref #	Bearing	Distance
L1	S 88°22'50" E	79.7'
L2	N 47°14'11" E	52.3'
L3	S 43°59'26" E	20.1'
L4	N 14°37'09" E	54.1'
L5	N 19°56'43" E	36.9'
L6	N 36°41'55" E	122.1'
L7	N 19°32'28" E	79.2'
L8	N 36°35'28" E	93.0'
L9	N 13°28'55" E	56.8'
L10	N 33°56'35" E	83.7'
L11	N 5°29'37" E	110.9'
L12	N 26°42'25" E	30.5'
L13	N 34°09'58" W	89.4'
L14	N 23°17'50" W	83.6'
L15	S 47°01'00" E	61.5'



**DO NOT REMOVE THIS TAG**  
**DEPARTMENT OF THE ENVIRONMENT**  
**WELL PERMIT NUMBER**  
**HO-20-0049**  
**INFORMATION - GIVE NUMBER AND WRITE**  
**1800 WASHINGTON BLVD**  
**BALTIMORE MARYLAND 21230**

**LOT 2**  
**7.793 AC. +/-**

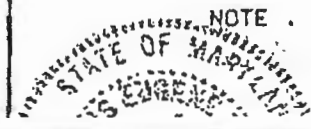
*APPROVED*  
*STAKED BY DRAFTER*  
*HO-20-0049*

**KENNARD DRIVE**  
**(50' RW)**

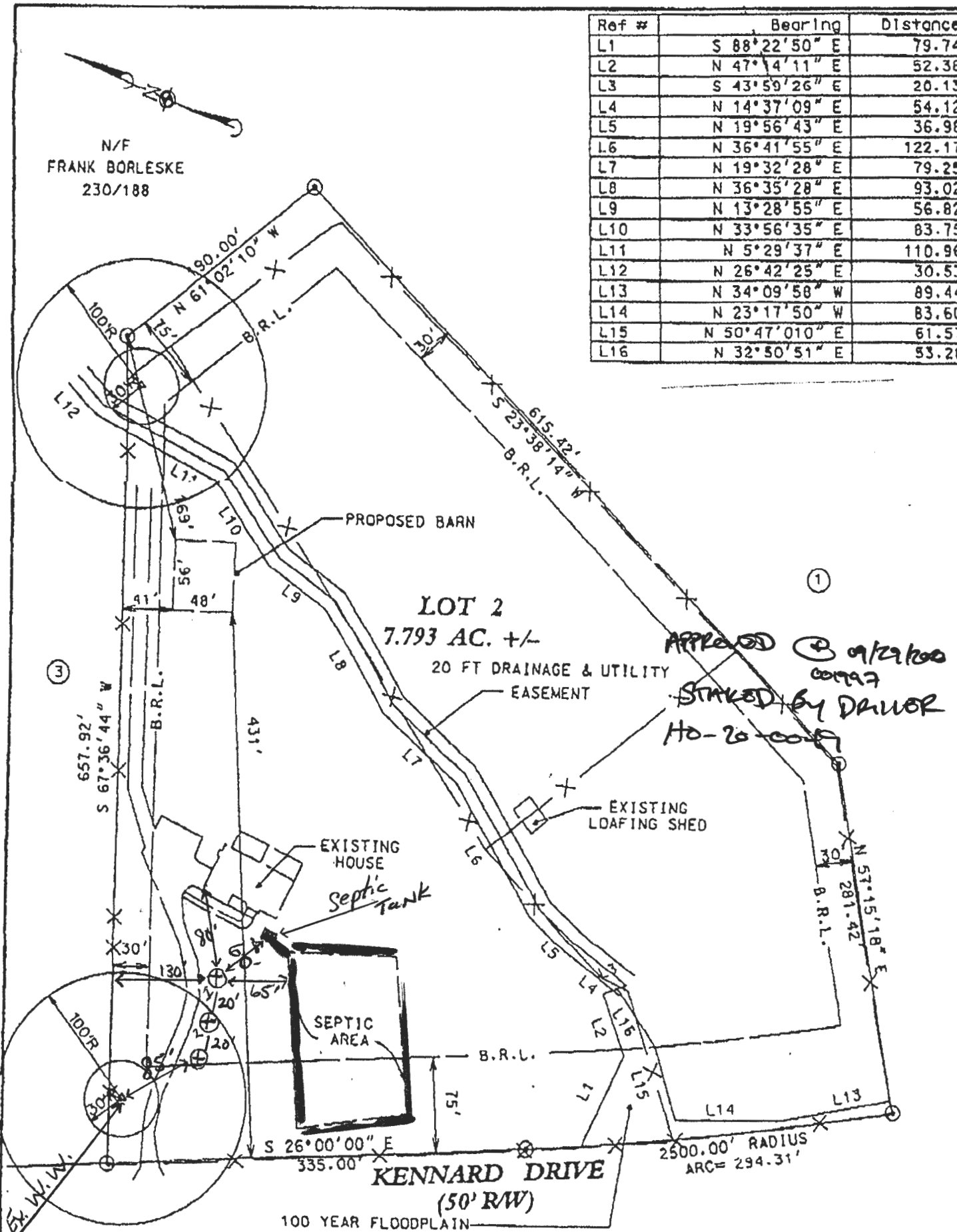
**PLOT PLAN**

**LOT 2**  
**CRYSTAL CLEAR**

NOTE . ESMT DOES NOT CLOSE MATHEMATICALLY (17' +/-)



Ref #	Bearing	Distance
L1	S 88° 22' 50" E	79.74
L2	N 47° 14' 11" E	52.38
L3	S 43° 59' 26" E	20.13
L4	N 14° 37' 09" E	54.12
L5	N 19° 56' 43" E	36.98
L6	N 36° 41' 55" E	122.17
L7	N 19° 32' 28" E	79.25
L8	N 36° 35' 28" E	93.02
L9	N 13° 28' 55" E	56.82
L10	N 33° 56' 35" E	83.75
L11	N 5° 29' 37" E	110.96
L12	N 26° 42' 25" E	30.53
L13	N 34° 09' 58" W	89.44
L14	N 23° 17' 50" W	83.60
L15	N 50° 47' 01" E	61.57
L16	N 32° 50' 51" E	53.28



**LOT 2**  
7.793 AC. +/-

**PLOT PLAN**

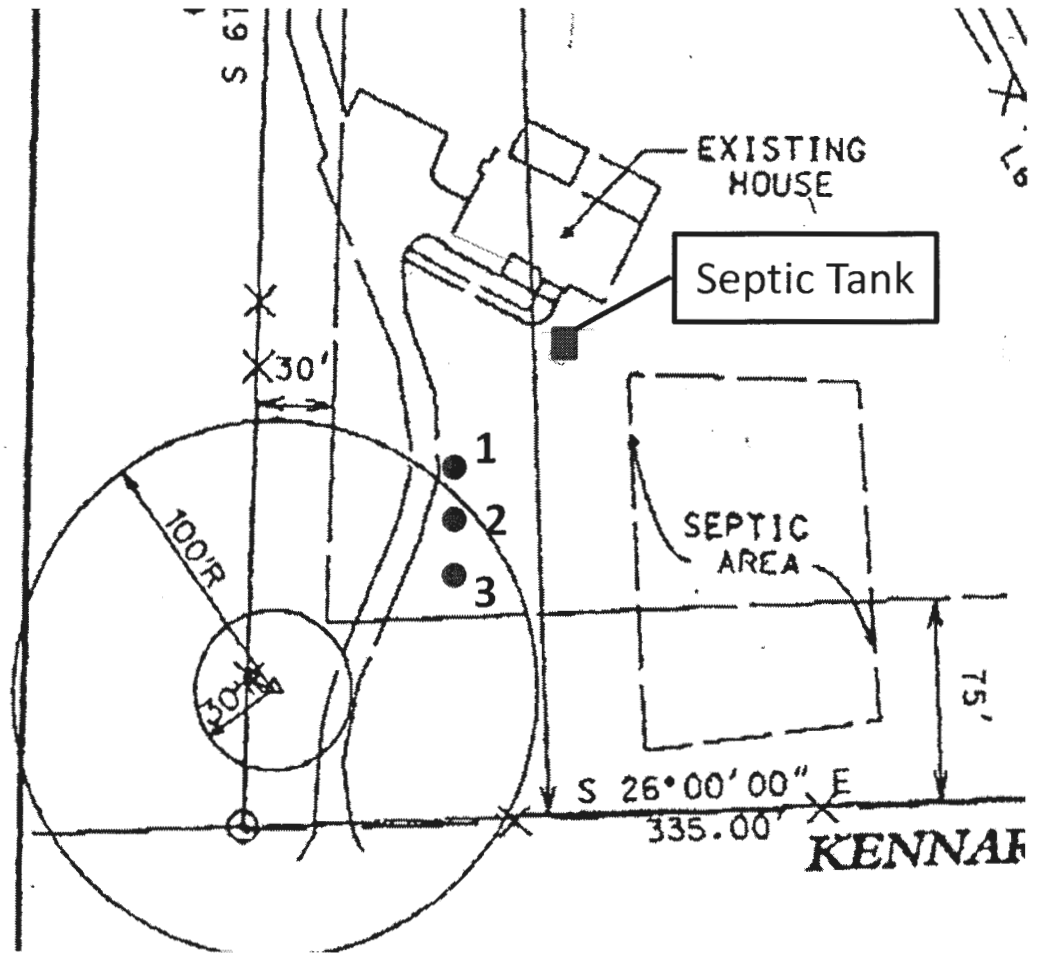
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**CRYSTAL CLEAR**

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## Setback Distances from Geo Wells 1, 2 & 3

	1	2	3
House	80'	100'	120'
Septic Tank	60'	75'	95'
Septic Reserve	65'	65'	65'
Property Line	130'	110'	90'
Water Well	110'	95'	85'

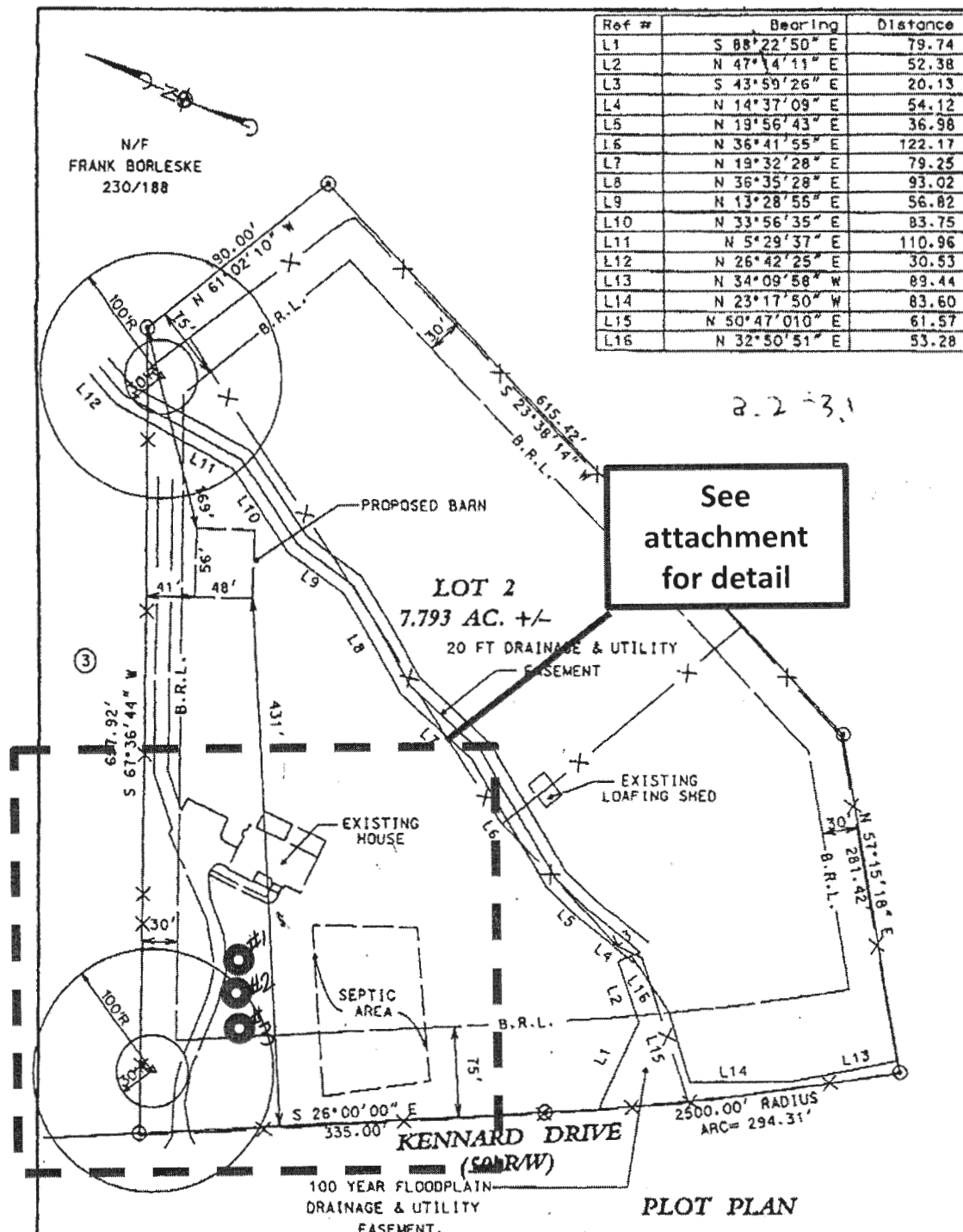


### PROPOSED GEOTHERMAL WELL LOCATIONS

Conor Woulfe Residence

13810 Kennard Dr., Glenelg MD 21737

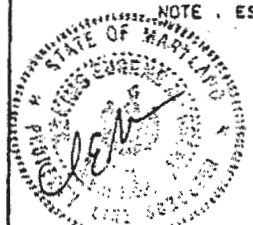
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See attachment for detail

**PLOT PLAN**  
**LOT 2**  
**CRYSTAL CLEAR**

THIRD ELEC. DIST. HOWARD CO. MD  
TAX MAP 22 ZONED "R"  
AS RECORDED PLAT C.M.P.NO. 8443



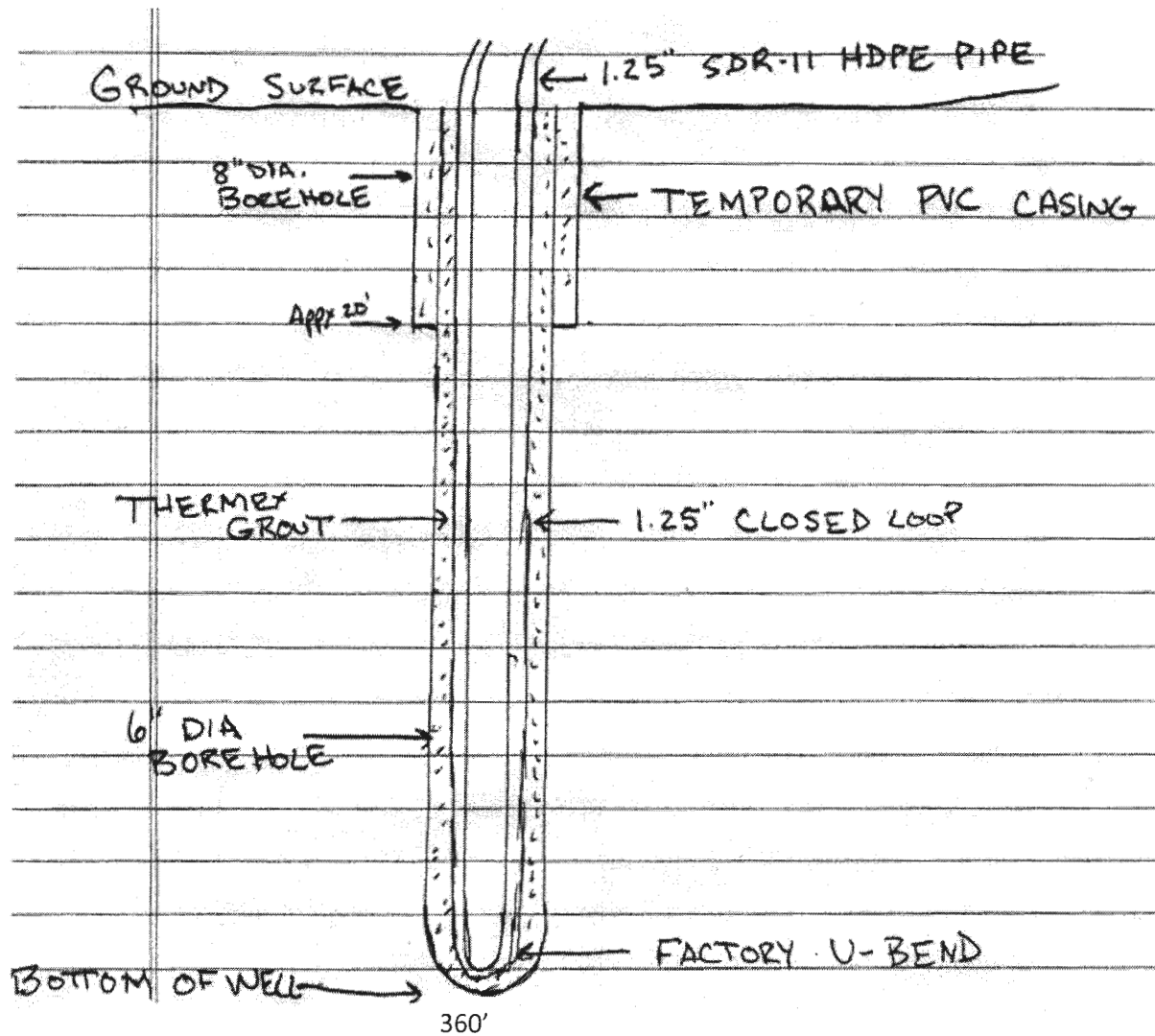
THERE ARE NO WELLS OR SEPTICS WITHIN 100 FT. OF ABOVE PROPERTY EXCEPT AS SHOWN

By Dennis E. Mackay 0010 7/22/99  
Dennis E. Mackay Property Line  
Surveyor No. 10844

**CLSI**  
Carroll Land Services  
Incorporated  
Engineers - Surveyors - Land Development Consultants  
LANDSCAPE ARCHITECTS - Environmental Scientists  
432 EAST MAIN STREET WASHINGTON, MD 21102-1112  
(410) 876-8017 FAX (410) 876-0008

DRAWN BY:	D.L.A.
DESIGN BY:	D.E.M.
REVIEW BY:	D.E.M.
DATE:	7/21/99
SCALE:	1"=100'
JOB NO.:	99148
SHEET:	1 OF 1

Woulfe Residence: 13810 Kennard Dr. Glenelg Geothermal Closed Loop



3 closed loop geo-wells to 360' deep each.

Grout information for this property is as follows:

Thermex grout mixture of 50 lb. grout to 19 gallons water, placed in the well using the tremie method, from bottom to top.